

Remarks/Arguments

With reference to the Office Action mailed June 17, 2003, and the Notice of Abandonment mailed December 30, 2003, Applicants offer the attached Petition for Revival ... Under 37 CFR 1.137(b) and the following remarks and argument.

Status of the Claims

Applicants have reduced the number of claims from 43 to 20, a reduction of 23 claims, and have amended the claims. This represents a sincere, good faith effort to advance the prosecution of this Application. Entry thereof is proper.

The Office Action of June 17, 2003

The claims were rejected as unpatentable under 35 USC §103 over U.S. Patent 6,029,151 to Nikander, either alone, or in various permutations and combinations with one or more of:

1. U.S. Patent 5,664,110 to Green et al., especially column 7, lines 21-35.
2. U.S. Patent 5,758,327 to Gardner et al., especially the Abstract, column 4, line 51 to column 5, line 2, and column 5, line 23 to column 6, line 13.
3. U.S. Patent 5,949,866 to Coiera et al., especially column 3, lines 47 to 52, and column 4, lines 49-57.
4. U.S. Patent 5,991,749 to Morrill, especially the Abstract, column 2, lines 45-59, and column 10, lines 60-67.
5. U.S. Patent 6,195,541 to Griffith et al, especially the teaching in the Abstract of using a cell phone to confirm a purchase.
6. U.S. Patent 6,336,137 to Lee et al., especially the description of messaging by a script applet.

Especially relied upon in Nikander is the broad description of an e-commerce transaction, at column 3, lines 9 – 16,

“The method according to the invention is characterized by that the method comprises the steps of

receiving a electronic money transaction request from a first telecommunications network addressed to a user in a second telecommunications network,

transforming the electronic transaction request to a conventional transaction.”

And the description of Figure 3, at column 4, lines 13 to 52,

“FIG. 3 shows a basic example of an advantageous embodiment of the invention. In this example, the user is in contact with a merchant 130 with his computer 100 and conventional modem 102 or ISDN adapter 103, through the conventional telephone network 108, local telephone exchange 104 of the conventional telephone network, the system 105 of the Internet service provider (ISP), and the network 116. The conventional telephone network may support ISDN connections as described here, for example, by having a telephone exchange 104 supporting ISDN connections. Any other known connecting methods and techniques may as well be used, for example, such as ADSL or HDSL connections. In the system according to the invention, the ISP system 105 additionally comprises an intercepting means 120. The intercepting means 120 redirects the payment requests originating from the network to the control unit 122 of the ISP system 105. When the user gives a request for a service or a merchandise, the merchant's 130 system responds with a payment request. The intercepting means 120 redirects the request to the control unit 122, which sends conventional accounting signals corresponding to the payment via the SSP 106 to the user's local telephone exchange 104, where the corresponding sum is added to the user's telephone bill. After sending the accounting signals, the control unit 122 sends the electronic money to the merchant 130 via the network 116. After receiving the electronic money, the merchant 130 continues with producing the requested service or merchandise.

The control unit may send the electronic money and other messages to the merchant via the intercepting means 120 as in the embodiment of FIG. 3, or past the intercepting means, for example via a router included in the ISP system.

The control unit may effect the debiting of the user's telephone account at any convenient stage in the payment procedure, not only in the beginning of the procedure. Naturally, it may be desirable for the ISP to effect the debiting at the latest before a point in the payment procedure after which the payment cannot be cancelled, if the debiting for some reason is not successful.”

It is conceded in the Office Action that Nikander fails to teach

1. A mobile phone bill,
2. Sending a confirmation from the seller to the buyer,
3. An on-line catalog.
4. On-line billing.
5. Display of the deliverables to the customer on the customer's system.
6. Sending the buyer's phone number to the seller for storage and retrieval.
7. Assignment of an order number.

8. GSM-SMS messaging.

However, it is argued in the Office Action that various combinations and permutations of the secondary references, enumerated above, overcome these deficiencies.

The Art of Record

The primary reference, U.S. Patent 6,029,151 to Nikander describes, generally, an electronic payment system. Nikander describes a hierarchy of financial intermediates, including the payor's phone company and the payor's internet service provider. Specifically, Nikander describes a hierarchical payment system where the Internet Service Provider (not the wireless provider) of the payor manages the payments, adding the corresponding charges on the payor's telephone bill, which is not the wireless phone bill identified to a specific user, but the landline phone bill identified to a location. Nikander admits that this functionality requires the financial intervention of the Internet Service Provider ("ISP") in the transmissions between a user and a third party, i.e. intercepting the electronic payment requests sent by a merchant. According to Nikander, the Internet Service Provider ("ISP") uses electronic money on behalf of the user, and charges the payments on the user's telephone bill.

U.S. Patent 6,195,541 to Griffith is cited for its teaching of utilizing a cell telephone to function as a transaction device. Specifically, Griffith describes the cell telephone placing a call to the transaction unit directly, that is, the cell phone transfers to the transaction unit account information specifying the type of account against which the transaction is to be billed and identification of that transaction. The transaction unit responds with a transaction number that is transmitted to the cell phone. The user of the cell phone then confirms the transaction when the correct transaction number is displayed on the transaction unit. Note that Griffith describes that after the transaction is completed, the transaction unit transmits the data defining the transaction to the cell phone which stores this information in a database associated with the account against which the transaction

was charged. But, also note that the account in Griffith is not the customer's cell phone user account with the cell phone provider.

U.S. Patent 5,949,866 to Coiera et al. describes GSM networks between a terminal and a server.

U.S. Patent 5,991,749 to Morrill et al. describes the use of cellular telephones and other analog or digital wireless communication devices to conduct transactions and activities. These procedures effectively allow such devices to function as an electronic wallet, a wireless PIN pad, and a contactless Smart Card, where a transaction involves a variable amount (not a specific transaction with a pre-set default price), such as buying lunch or a souvenir from a street vendor. The CPU prompts the user to enter an amount, "SEND" it, then prompts "OK?" and the user presses "SEND" or clears and re-enters amount. The CPU then determines the types of user accounts to access for the type of transaction and displays either a default source account authorized to be debited (such as the customers mobile phone account), or prompts for a unique account code representing a specific credit card, debit card, bank, or other financial account. This is not a direct charge to the cell phone account. The mobile phone service provider CPU will have a linked record of the customer's pre-authorized financial account numbers and the customer's written authorization to debit/credit them. The account code is entered and the user presses "SEND. " and a procedure. This procedure describes the use of a cellular telephone in conjunction with a PC to provide transaction security for purchases (financial transfers) made via the Internet or other interactive on-line transaction system. Under this procedure the cellular phone functions as a "PIN pad," providing authorization and authentication of funds transfers, without sending credit card account numbers over the Internet or relying upon potentially "hackable" computer software encryption to prevent unauthorized access to financial account numbers. This procedure requires that, unless the PC modem is using a cellular telephone to communicate, an interface device be connected to the personal computer, or installed internally, which allows communication between a cellular telephone and the PC via a PCMIA cord connection. Also required are software add-ons to Net browsers, virtual banking, or other interactive financial programs

to provide user information and prompts consistent with the cell phone transaction/activity procedures.

U.S. Patent 6,336,137 to Lee is cited for its teaching of pushing a WML script applet to the cell phone.

U.S. Patent 5,664,110 to Green is cited for its description of a remote ordering system where the system maintains a list of open orders for subsequent modification by the purchaser.

U.S. Patent 5,758,327 to Gardner et al. describes a method of electronic requisition processing that includes storing company-specific requisition rules and an electronic catalog on a central computer system located at a first site. The central computer system is linked to a number of companies by means of an external communications line, such as a telephone system-and-modem arrangement. A requester at one of the companies may identify one or more items to be ordered. In response to the requisition, the company with which the requestor is associated is determined, and the appropriate requisition rules for that company are implemented. If more than one item is identified, a requisition folder is formed in software to contain a number of requisitions. Also contained in the requisition folder are any required attachments, with each attachment being designated as being "internal" or "external" and as "confidential" or "non-confidential." The authorization process dictated by the requisition rules of the company are followed, with at least a portion of the process being executed electronically via the external communications line. If the purchase of items is authorized, an appropriate number of purchase orders are generated and are preferably transmitted to vendors electronically. The method isolates the companies from the vendors. In one embodiment, the payment process is also carried out in a manner that isolates the companies and the vendors. Vendors invoice the operators of the central computer system, who then invoice the companies.

Applicants' Claimed Invention

At a high level Applicants' claims are directed to a method, system, and program product for completing and securely paying for e-commerce transactions.

As described in numbered paragraphs [0008]-[0011] of Published Application
US2001/0037264

“[0008] An inherent problem of e-commerce over the internet is the payment process. In most cases the customer is required to enter credit-card details (e.g., the card number, the name of the card holder, and the card's expiry date) ;into an electronic for and transmit the data--in the best ease encrypted--over the internet to the merchant who is supposed to deliver. The problem with this solution is manifold:

“[0009] The customer has to entrust the credit card details to the merchant; not only can the merchant then potentially use the credit card details for other purposes, the customer also has to trust the merchant to protect the credit car data adequately. Recent events have shown that assumption to be a risky one. Even though the customer at least has the remedy of disputing the purchase and have the credit card company cancel the transaction, the customer nevertheless carries the burden and risk.

“[0010] The merchant incurs the risk of accepting forged credit card details and delivers without getting reimbursed by the credit card company. The remedy of obtaining clearance from the credit card company is not always economical and typically time-consuming.

“[0011] Payment by credit card is too expensive for small amounts of money.”

Various third party intermediary payment processes have been proposed to address these issues. Typically, these third party intermediary payment processes have required the payor (purchaser) to entrust his credit card number or bank account number to the third party intermediary. However, these third party intermediary payment processes still require the payor's divulgation of his credit card number or bank account number to the seller.

By way of contrast, Applicant provides a cell phone based solution. At a high level Applicants' claims are directed to a method, system, and program product for completing and paying for e-commerce transactions through the buyer's/payor's cell phone account, personally identified to the buyer/payor, via the buyer's/payor's cell phone provider as the financial intermediary.

Specifically, Applicants' claims are directed to payment for an e-commerce transaction via the payor's (purchaser's) cell phone provider. This is done by the purchaser authorizing a charge to his cell phone account, with the cell phone provider confirming payment to payee (seller), and thereafter making payment to the payee (seller).

Applicants claim a method, system, and program product for handling order confirmations and e-commerce payments by and through the buyer's/payor's mobile phone carrier system. As claimed, the payment process is initiated for a customer who orders a deliverable through a merchant system at a certain price. The customer has access to both a customer system and a mobile phone (identified to the customer, that is, the buyer/payor) with an associated phone number.

The buyer obtains transaction information for the ordering of the deliverable from the merchant system. The seller obtains the phone number of the mobile phone (for example, through a "caller ID" system) and sends an order confirmation for the deliverable to the mobile phone using the so-identified phone number.

The buyer receives the order confirmation through the mobile phone.

When the buyer/payor enters a code on the mobile phone, this initiates a charge to the buyer's/payer's mobile phone bill. Specifically, the charge is billed to the mobile phone account of the mobile phone user identified to the phone, that is, customer who ordered the deliverable. The mobile phone bill is maintained by the mobile phone carrier system for the mobile phone with the certain price; and sending an order confirmation or payment confirmation to the merchant system.

Discussion

The overarching issue presented is whether Nikander, either alone or in combination with other enumerated references teaches or even merely suggests the totality of Applicants' claimed invention.

Applicants' amended claims recite, at their core a secure e-commerce payment system through a buyer's cell phone carrier, where upon making a purchase the buyer/payor authorizes a charge to his cell phone account, with the cell phone provider confirming payment to payee (seller), and thereafter making payment to the payee (seller).

Applicants claim a method, system, and program product for handling order confirmations and e-commerce payments by and through the buyer's/payor's mobile phone carrier system.

While the buyer obtains transaction information for the ordering of the deliverable from the merchant system, the seller obtains the phone number of the cell phone (for example, through a "caller ID" system) and sends an order confirmation for the deliverable to the mobile phone (43; 73) using the so-identified phone number.

The buyer receives the order confirmation through the cell phone, and enters a code on the cell phone, which initiates a charge to the buyer's/payer's cell phone bill. The charge is billed to the cell phone account of the cell phone user identified to the phone, that is, customer who ordered the deliverable. The cell phone bill is maintained by the cell phone carrier system for the cell phone with the certain price; and sending an order confirmation or payment confirmation to the merchant system.

Nikander fails to teach key elements of Applicants' claimed invention, specifically

1. A mobile phone bill,
2. Sending a confirmation from the seller to the buyer,
3. On-line billing.
4. Display of the deliverables to the customer on the customer's system.
5. Sending the buyer's phone number to the seller for storage and retrieval.

Specifically, Nikander describes and claims the steps of

"optionally initiate the payment procedure on the request of the user,

intercept and redirect to the electronic wallet means an incoming payment request addressed to a user,

add a charge corresponding to the requested amount to the user's telephone bill,
and

send from the electronic wallet means an electronic money payment in response to the payment request from a merchant”
(Column 2, lines 58-68).

where Nikander further discloses:

“The present invention is based on the idea, that the use of electronic money is greatly simplified for a non-expert user, if the ISP takes care of the electronic money payments, and adds corresponding charges on the user's telephone bill or uses some other suitable way of obtaining a payment from the user. Such functionality requires the intervention of the ISP in the transmissions between a user and a third party, i.e. intercepting the electronic payment requests sent by a merchant.

According to a preferable embodiment of the present invention, the ISP uses electronic money on behalf of the user, and charges the payments on the user's telephone bill. The ISP can take care of all technical details necessary for obtaining different forms of electronic money in a centralized manner, and all users of the ISP can use the electronic money obtained by the ISP simply by allowing the ISP to add corresponding charges to their telephone bills. Further, the ISP can obtain all major forms of electronic money, whereafter a user can choose the most economical way of payment, if a merchant accepts payments in more than one form of electronic money.

“The system according to the present invention comprises an interception means, which examines the incoming data traffic. When the interception means notices that a transmission contains a request for payment with electronic money, it redirects the transmission to another means comprising the functionality necessary for the use of electronic money. After this, the system inspects the request, adds a corresponding amount to the user's telephone bill and continues with the payment according to the received request. The system according to the invention can further comprise means for controlling, and optionally initiating, the payments. For example, the user can set up an acceptance policy or accept or reject individual payments through a separate connection to a network address administered by the system according to the invention.”
(Column 3, lines 17-51)

Nikander

1. Requires the ISP's intervention of the ISP in the transmissions between a user and a third party.
2. Requires hardware and software for intercepting the electronic payment requests sent by a merchant. This interception means which examines the incoming data traffic, and when the interception means notices that a transmission contains a request for payment with electronic money, the interception means redirects the transmission to another means comprising the functionality necessary for the use of electronic money.

This "interception means" of Nikander is described and characterized as

"In the system according to the invention, the ISP system 105 additionally comprises an intercepting means 120. The intercepting means 120 redirects the payment requests originating from the network to the control unit 122 of the ISP system 105. When the user gives a request for a service or a merchandise, the merchant's 130 system responds with a payment request. The intercepting means 120 redirects the request to the control unit 122, which sends conventional accounting signals corresponding to the payment via the SSP 106 to the user's local telephone exchange 104, where the corresponding sum is added to the user's telephone bill. After sending the accounting signals, the control unit 122 sends the electronic money to the merchant 130 via the network 116. After receiving the electronic money, the merchant 130 continues with producing the requested service or merchandise." (Column 4, lines 26-41)

and

"The basic functions performed by the intercepting means 120 include, but are not limited to, the following:

the intercepting means 120 inspects every incoming data packet,

if the data packet does not contain electronic money traffic, the data packet is forwarded in the normal way to the user,

if the data packet does contain electronic money traffic, the intercepting means 120 directs it to the electronic money transaction means.

The method of detecting electronic money traffic from other traffic may vary depending on the actual protocol used to transfer money. In the current electronic monetary systems the two main approaches for the transmission of electronic money information are the following:

1) the electronic money traffic is directed to a certain port according to the TCP/IP-protocol,

2) the electronic money information is contained within special fields of the HTTP protocol. Preferably, the system according to the invention is arranged to handle both types of electronic money information. For clarity, the cases 1) and 2) are discussed separately in the following paragraphs.

In the case that the electronic money traffic is directed to a certain TCP port, the basic function of the intercepting means 120 of redirecting electronic money traffic to the control unit 122 can be implemented in several ways, which include at least the following:

1a) The intercepting means 120 can redirect the electronic money containing packets to a different output than the rest of the traffic, as shown in FIG. 4.

1b) The intercepting means 120 can treat a packet containing electronic money as a piece of data and pack it into one or more IP packets addressed to the control unit 122 and forward the new packets to the same output as the rest of the traffic, after which the router 114 of the ISP system 105 switches the new packets to the control unit 122.

1c) The intercepting means 120 can rewrite the packet, replacing the user's address with the address of the control unit 122 in the destination address field of the packet, and encoding the user's address in other fields of the packet or by adding a source routing option to allow the control unit 122 to recognize which user the packet was originally addressed to. After rewriting, the intercepting means 120 forwards the rewritten packet to the same output as the rest of the traffic, whereafter the router 114 of the ISP system 105 switches the new packets to the control unit 122.”
(Column 7, line 32 to column 8, line 14)

Nikander represents an added level of system complexity, and added level of transactional complexity (even if transparent to the buyer/payor), and an added exposure of the buyer's/payor's personal information and financial information to interception, exposure, and compromise.

It is argued in the Office Action that various combinations and permutations of the secondary references, enumerated above, overcome these deficiencies. This is a “divide and conquer” element-by-element attack on the claims, but does not address the totality of the claimed invention. Specifically, no one reference and no combination of the references shows the totality of moving the confirmation and financial settlement elements of an e-commerce transaction from the Internet Service Provider network to the Cell Phone Network, especially where the Cell Phone Network account is identified and associated to the cell phone user personally, frequently with Electronic Funds Transfer settlement of the cell phone bill.

Thus, Nikander fails as a reference, and the fundamental flaws of Nikander can not be overcome by the various combinations and permutations of the secondary references.

Conclusion

Based on the above discussion, it is respectfully submitted that the pending claims describe an invention that is properly allowable to the Applicants.

If any issues remain unresolved despite the present amendment, the Examiner is requested to telephone Applicants' Attorney at the telephone number shown below to arrange for a telephonic interview before issuing another Office Action.

Applicants would like to take this opportunity to thank the Examiner for a thorough and competent examination and for courtesies extended to Applicants' Attorney.

Respectfully Submitted

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I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as Certified Priority Mail (Certified Label 7004 1350 0004 9592 0344) in an envelope addressed to the Commissioner for Patents, Mail Stop Petition, PO Box 1450 Alexandria Virginia, 22313-1450

Date of deposit: January 3, 2005

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